ATTACHMENT NOT INCLUDED

TRIP REPORT

FOR

FANSTEEL METALS / FMRI SCORING STRATEGY
10 TANTALUM PLACE
MUSKOGEE, MUSKOGEE COUNTY, OKLAHOMA

Prepared for

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TRIP REPORT

1. INTRODUCTION

Under the authority of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) and the Superfund Amendments and Reauthorization Act of 1986 (SARA), Weston Solutions, Inc. (WESTON®), the U.S. Environmental Protection Agency (EPA) Region 6 Superfund Technical Assessment and Response Team (START) contractor, was tasked to provide a Trip Report describing activities performed to supplement an Expanded Site Inspection (ESI) of Fansteel Metals/FMRI (Site), located in Muskogee, Muskogee County, Oklahoma (Figure 1 - Site Location Map). EPA Region 6 retained START to complete this investigation under Contract Number EP-S5-17-02, Technical Direction Document (TDD) No. 0001/18-173 (Attachment A).

2. SITE DESCRIPTION

The Site is a former metals fabricator located at 10 Tantalum Place, Muskogee, Muskogee County, Oklahoma. The Site comprises approximately 105 acres, whose geographic coordinates are Latitude 35.773880° North and Longitude 95.305086° West, and is located approximately 4.5 miles northeast of downtown Muskogee, Oklahoma. The Site is bordered on the north by several commercial/industrial properties, to the south by U.S. Highway 62, to the east by the Arkansas River, and to the west by the Muskogee Turnpike (Figure 1).

The Site contains multiple contaminant sources that have contributed to radioactive (uranium and thorium), metal, and volatile soil and groundwater contamination. The Site has five active ponds on the property, two former ponds (one of which was converted to a landfill), five former basins, one lagoon, one borrow pit, and a chlorinated groundwater plume; parts of the Site are well vegetated with grasses and trees. There are 14 buildings on the Site, and some are in active use. Fencing secures the Site, but can be accessed through the main entrance on the western boundary of the property (Figure 2 - Site Layout Map).

3. SUMMARY OF ACTIONS

EPA and START, in conjunction with the Oklahoma Department of Environmental Quality (ODEQ), mobilized to the Site on 14 November 2019 to collect additional sediment samples from the Arkansas River to supplement ESI samples collected in April 2019. Five discrete sediment samples (and one duplicate sample) from 0 to 12 inches in depth were collected from the Arkansas River. Four sediment samples collected upstream of the Site, were background samples, and during the April 2019 ESI field activities, an upstream sample at location SED-BKG-20190408 was collected along the Arkansas River. Sediment sample SED-N-DRNG2-20191114 (November 2019) was collected near the location of the original ESI sample SED-N-DRNG-20190409 (April 2019), in the northern drainage ditch. The Arkansas River water level was high at the time of the November 2019 sampling event, and the original sample location was still inundated. This sample location serves as a duplicate in order to establish sample similarity between the April 2019 sampling event and this November 2019 sampling event. Sample locations are shown on Figure 3 – Sample Location Map.

The samples were collected and analyzed to better establish existing background levels of total analyte list (TAL) metals, mercury, and isotopic thorium, uranium, and radium in the Arkansas River. The additional background samples allowed the determination of background concentrations for radionuclides in accordance with the Hazard Ranking System (HRS). The HRS defines concentration levels significantly above background levels for radioactive isotopes as exceeding two standard deviations above the mean background concentration. Calculations of these concentrations are included in Table 1 – Radiological Isotope Background Calculations, and a summary of results is included in Table 2 – Data Summary Results.

Digital photographs taken of Site activities are included as Attachment B. START Site logbook notes are included as Attachment C. The laboratory data package and data validation report are included as Attachments D and E, respectively.

A qualitative gamma radiation survey was conducted by USEPA National Center for Radiation Field Operations (NCRFO) and EPA Region 6 in July 2019. The NCRFO final report was published in the November 2019 Fansteel / FMRI ESI report. A supporting gamma survey map was not available for inclusion at the time the ESI report was published. At the direction of the

EPA Task Monitor (TM), a gamma scan survey results map was prepared and is included in this Trip Report as Figure 4. Supporting radiation survey data files are included as Attachment F.

This summary report was prepared as part of the requirements of the TDD No. 0001/18-173 and serves as documentation of work completed to date.

4. LIST OF ATTACHMENTS

A. TDD No. 0001/18-173
B. Digital Photographs
C. START Site Logbook
D. Laboratory Data Package
E. Laboratory Data Validation Reports
F. Radiation Survey Data Files

5. LIST OF FIGURES

Figure 1 – Site Location Map
Figure 2 – Site Layout Map
Figure 3 – Sample Location Map
Figure 4 – Gamma Scan Survey Results Map

6. LIST OF TABLES

Table 1 – Radiological Isotope Background Calculations
Table 2 – Data Summary Results

[ ] The EPA Task Monitor did not provide final approval of this report prior to the completion date of the work assignment. Therefore, Weston Solutions, Inc. has submitted this report absent the Task Monitor's approval.

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